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# Inside Wallops

## ***NASA Wallops Flight Facility Provides Hurricane Data***

The first major hurricane of the season threatened the southeastern coast of the United States for days before going ashore in North Carolina. Hurricane Bonnie was powerful with hurricane force winds extending up to 145 miles



*SeaWiFS view of Hurricane Bonnie Taken Aug. 26*

from the center and tropical storm force winds up to 230 miles from the eye of the storm.

Hurricane Bonnie provided plenty of work for personnel from the Wallops Observational Science Branch (Code 972) who were supporting the Convection Moisture Experiment (CAMEX) mission. Upper air measurements were taken using radisonde balloons and specially equipped aircraft flew into Hurricane Bonnie collecting high-altitude.

Prior to the hurricane's approach, Frank Schmidlin (Code 972) and Prentiss Moore (NYMA) were based at Andros Island, Bahamas. Between Aug 4 and Aug 25, they released 58 radisonde balloons collecting upper air measurements providing calibration data for overflights by NASA DC8 and ER2 aircraft. The measurements were sent to the National Hurricane Center and were the only known data available from the Bahamas area, Schmidlin said.

Wayne Wright and Ed Walsh (Code 972) were based at Tampa, FL and flew into the hurricane on a National Oceanographic and Atmospheric Administration (NOAA) WP-3 Orion aircraft. This Wallops team used a NASA instrument to measure storm surge.

The following are excerpts from an e-mail sent by Wright on Aug. 27 following a nine-hour flight into the hurricane.

"Ed Walsh and I had another successful 9+ hour hurricane flight today aboard NOAA-43, a WP3D hurricane hunting aircraft. We departed MacDill AFB in Tampa, FL at 11 a.m. sharp, Wed., 8-26 and returned for landing at 8 p.m. We made at least five eye-wall penetrations. Because the hurricane slowed down, we were on station a couple of hours before the eye made landfall."

"The real-time display clearly indicates high waves (30-40 ft.) on the northeast side and almost no wave action in the south side. We initially flew at 8,000 ft. for a line or two, but then descended to 7000 ft. for the duration. The ride today was good, about like a bumpy commuter flight in some areas and perfectly smooth most of the time."

Data taken for CAMEX will yield high-resolution spatial and temperature information on hurricane structure, dynamics and motion, leading to improved hurricane prediction. Results also will be used to validate existing measurements from the Tropical Rainfall Measuring Mission of hurricanes and tropical storms and to develop algorithms for future Earth science missions.

The CAMEX mission involved eight NASA centers, other government weather researchers and the university community for a coordinated, multi-agency and -university Atlantic hurricane and tropical storm study. Aircraft flying at different altitudes gathering storm data included a NASA DC-8 and ER-2, a NOAA WP-3 Orion and the Hurricane Hunters WC-130 "Hercules".

### ***Next week.....***

NOAA and the U.S. Geological Survey (USGS) have requested assistance from the OSB in mapping the North Carolina beaches damaged by Hurricane Bonnie. A NOAA Twin Otter aircraft is to arrive at Wallops Aug. 28 for installation of the Wallops laser and GPS equipment. A checkout flight that will include Assateague Beach is planned before departing to North Carolina.

## ***Wallops Shorts.....***

### **Balloon Launch**

A 29.47 million cubic foot NASA scientific balloon was successfully launched Aug. 25 from Palestine, TX. The infrared astronomy payload was to perform measurements and characterizations of the anisotropy of the cosmic microwave background. The principal investigator was Dr. Gregory Tucker, Brown University. Total flight time was 9 hours, 2 minutes.

### **Fire Department**

Emergency medical technicians responded to a mutual aid request on Aug. 26 to assist the Atlantic Volunteer Fire Department with a heart patient.

Fire department personnel participated in a parade Aug. 29 celebrating the 50th Anniversary of the Cheriton (VA) Volunteer Fire Department.

## ***NASA Technology Instrumental in Life-Saving***

SARSAT (Search and Rescue Satellite Aided Tracking) communications packages, developed at Goddard Space Flight Center (GSFC), played a vital role in locating hot-air balloonist Steve Fossett. Fossett's balloon, the "Solo-Spirit," fell into the southern Pacific Ocean during a severe storm.

A distress message from an Emergency Position Indicating Radio Beacon (EPIRB) was received by a search and rescue repeater package on the GOES-10 satellite shortly after activation. The message was relayed by a ground station in Trenton, Ontario to the NOAA U.S. Mission Control Center (USMCC) in Suitland, Md. After a check of its database to determine the owner of the beacon, the USMCC notified the U.S. Coast Guard, which alerted the Solo Spirit ground team.

"Although they knew the approximate position of the balloon at the time of the alert, it could not be pinpointed until about an hour and a half later when NOAA-14, a satellite of the POES constellation, also supplied by Goddard, flew over within view of Fossett and captured a "Doppler" fix on his location," said Ron Wallace, Search and Rescue Mission Manager, GSFC.

"Fossett's location was first found by the U.S. tracking station on Guam and the Australian station at Bundaberg, north of Brisbane. The location was quickly supplied to Australian search and rescue authorities who coordinated the search. Aircraft and ships from France, New Caledonia, Australia and New Zealand were involved in the operation," he said.

Visitor Center September  
Special Events

**September 5** — A model rocket launch will be held at 1 p.m. Models of various rockets will be launched. Model rocketeers are invited to bring their own rockets and launch them. The launch will be canceled if it is raining or winds exceed 18 mph.

**September 19** — A “Scavenger Hunt” will be held at 1 p.m. for children 5 to 10 years of age. This 40-minute activity will introduce children to NASA, specifically Wallops Flight Facility and its missions. Children who complete the hunt will receive a NASA lithograph and a coloring book. Parental participation is requested.

“Puppets in Space,” a 10-minute puppet show will be presented at the Visitor Center at 2 p.m. Monday through Friday and 11 a.m. on Saturdays and Sundays until Labor Day. After Labor Day the program will be presented only on Saturdays and Sundays at 11 a.m. Puppet astronauts and Sam the monkey will explore space flight, including the space suit. An eight-minute version of the film “Astrosmites” follows the puppet show.

Sundays — “Humans in Space” is the subject of a 1 p.m. program for children of all ages. The 30-minute program looks at living and working in space, including a review of the astronauts’ culinary delights and their wardrobe. The program is followed by a hands-on children’s activity. Children will be given the opportunity to create their own “space helmet”.

“Space Ace” — Children 5 to 10 years of age can earn a “Space Ace” certificate and a lithograph during their Visitor Center visit by completing an activity sheet.

The Visitor Center is open daily from 10 a.m. to 4 p.m., through Labor Day. Beginning Sept. 8 it will be open Thursday through Monday from 10 a.m. to 4 p.m. and closed on Tuesday and Wednesday.

Fire in Compressor Shed at  
Greenbelt Investigated

Goddard Space Flight Center (GSFC) officials investigating a fire that occurred in a compressor shed adjacent to Bldg. 4, a multi-purpose building, on Aug. 20, said there was extensive fire damage to one side of the building. No injuries resulted from the fire.

A mishap investigation board at GSFC has begun to analyze facts to determine the cause of the fire to prevent similar events from occurring.

Upcoming Training

OSHA Voluntary Compliance

The NASA Safety Training Center (NSTC) in planning a vits class on OSHA Voluntary Compliance. In order to get this class scheduled at Wallops, personnel interested in taking it should contact Joe Drawdy, x1884 by Sept. 10.

This course is intended to provide instruction on general industrial safety and health topics at the introductory level. Examples of these topics include:

- Introduction to OSHA Standards
- Means of egress
- Fire Protection
- Electrical safety
- Hazard Communications
- The Code of Federal Regulations (CFR) 1910
- NASA Headquarters level safety documentation

This course in designed to give managers, technical personnel, and safety professionals an understanding of OSHA requirements. The course will provide personnel with a knowledge of OSHA requirements and assist managers and technical personnel with the working knowledge required to meet NASA’s safety commitment to become OSHA VPP Certified.

MORT-Based Mishap Investigation

Dates: Oct. 5 - 9, 1998  
Time: 8 a.m. - 4 p.m.  
Location: Wallops Flight Facility

This workshop will provide techniques to conduct effective investigations and to provide clear and concise results. The basics of mishap investigation are outlined and reviewed. The focus is on the application of analytical techniques based on the management oversight and risk tree (MORT) approach to accident investigation. Practical examples and exercises will reinforce lectures and theory.

This workshop is recommended for safety professionals and executive or supervisory personnel selected for the standing body of board members.

This course is offered at no cost to NASA civil service and contract employees. For further information or to register contact Joe Drawdy, x1884.

E.S. Blood Bank Dues

It’s time again to pay dues to the Eastern Shore Blood Bank. Dues are \$5. If you are 65 or older, your dues are \$2.

Send a check or cash to Linda Layton, Bldg. E-105 by Sept. 18. Checks must be made payable to Easter Shore Blood Bank.

There are 235 members in the Wallops group. If your dues are not received by Sept. 30, you will be placed on an individual membership status.

Federal Women’s Day  
Events Canceled

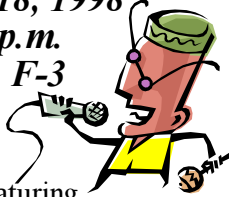
Based on the Aug. 25 hurricane report, it was decided to cancel Federal Women’s Day events scheduled for Aug. 26.

We plan to reschedule the events as soon as hurricane “Bonnie” (and maybe “Danielle”) decide what they are going to do. Please hold onto your luncheon tickets. We are hopeful that the same presenters will be available and will furnish a “reschedule” date as soon possible.

Sorry for any inconvenience — put into perspective, it’s a minor inconvenience compared to what we could have been facing. For further information call Pat Pruitt, x1145.

“Kareoke”

September 18, 1998  
6-10 p.m.  
Bldg. F-3



Featuring  
New Millennium Entertainment  
with  
Greg Michaels and Tanya

There is NO CHARGE

For further information, contact Jan Neville, x1526.

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